

ABSTRACT OF THE DISCLOSURE

The nonvolatile memory according to the present invention can precisely read information included in a memory transistor subject to a shift phenomenon because electrical read is performed on the memory transistor by using a reference voltage
5 generated from a refresh memory transistor. Further, according to the present invention, the period of time during which the refresh operation is performed can be longer than before, which improves the reliability of information stored in the memory transistor. Furthermore, the margin between distributions of threshold voltages can be reduced, which improves the scale of integration of the multilevel nonvolatile memory.

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